We Claim:

1. A method of achieving an immunomodulatory effect, achieving an antineoplastic effect, or inhibiting hyperproliferative cell growth in a patient in need thereof, comprising administering to said patient an effective amount of a compound formulae I to XVII or a pharmaceutically acceptable salt thereof

$$(Z_2)_n \xrightarrow{A} A Q \xrightarrow{D} (Z_2)_n$$
 (I)

- B is a phenyl ring,
- D is a phenyl ring or a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N.
- A is, in each case independently of each other, a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,
- Q is a bond or an alkylene or alkenylene group containing 1-5 carbon atoms, which is optionally substituted with =O, and in which optionally a carbon atom is replaced with an N atom,
- Z₁ is, in each case independently, -NH₂, =O, =NH, or =N-phenyl, -phenyl, or alkyl containing 1 to 5 carbon atoms,
- Z₂ is, in each case independently, -OH, halogen, alkyl containing 1-5 carbon atoms, which is optionally substituted with halogen, and/or substituted with =O and/or -OH, and in which one C atom is optionally replaced with and O atom,
- Z₃ is, in each case independently, alkyl containing 1-5 carbon atoms, and
- n is, in each case independently, 0, 1, 2, or 3;

$$(Z_1)_n \qquad (II)$$

wherein,

G₁, G₂, and G₃ are, in each case independently, C, O, S, or N,

- D is a phenyl ring or a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,
- Q is a straight chain or branched alkylene or alkenylene group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N or S atom,
- is, in each case independently, =O, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH,
- Z₂ is, in each case independently, =O, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH,
- n is 0, 1, or 2, and
- m is 0, or 1;

$$G_{6}$$
 G_{5}
 G_{4}
 G_{1}
 G_{2}
 G_{3}
 G_{2}
 G_{3}
 G_{2}
 G_{3}
 G_{2}
 G_{3}
 G_{3}
 G_{4}
 G_{2}
 G_{3}
 G_{4}
 G_{2}
 G_{3}
 G_{4}
 G_{5}
 G_{5}
 G_{4}
 G_{5}
 G_{5

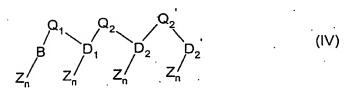
- G₁, G₂, G₃, G₄, G₅ and G₆ are, in each case independently, C, O, S, or N, such that four or five of G₁, G₂, G₃, G₄, G₅ and G₆ are C atoms and the remaining G₁, G₂, G₃, G₄, G₅ and G₆ are O, S, or N,
- Q is a bond or a straight chain or branched alkylene or alkenylene group containing 1-10 carbon atoms which is optionally substituted with =O in one or two places, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N or O

atom, and in which optionally a carbon atom is replaced with a 6-membered heterocyclic group containing 1 or 2 nitrogen atoms when the alkylene or alkenylene group is a straight chain group,

- Z₁ is, in each case independently, -OH, halogen, or an alkyl group containing 1-5 carbon atoms.
- is, in each case independently, =O, halogen, or an alkyl group containing 1-10 carbon atoms which is optionally substituted with =O in one or two places and/or -OH, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N and/or S atom,
- Z₃ is, in each case independently, -OH, halogen, -NO₂, an alkyl group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with =O in one or two places, or is -O-phenyl, wherein the phenyl group in the -O-phenyl is optionally substituted with an -NO₂ group,

n is 0, 1, or 2, and

m is 0, 1, 2, or 3;



wherein,

B is a phenyl ring,

- D₁ is a phenylene ring or a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,
- D₂ and D₂' are, each independently of each other, absent or a phenyl or phenylene ring or a 5or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,
- Q₁ is a bond or a branched or straight chain alkylene or alkenylene group containing 1-10 carbon atoms, which is optionally substituted with 1 to 5 =O and/or OH groups, in which optionally 1, 2, or 3 carbon atoms are, in each case independently, replaced with an N, O or S atom, wherein S is optionally substituted with 1 or 2 =O groups,

 Q_2 and Q_2 ' are, each independently of each other, a bond or a branched or straight chain alkylene group containing 1-5 carbon atoms, which is optionally substituted with an =O group, in which optionally a carbon atom is replaced with an N, S, or O atom, wherein Q_2 is absent when D_2 is absent and Q_2 ' is absent when D_2 ' is absent,

- Z is, in each case independently, =O, =S, -OH, -NH₂, -NO₂, -C N, -SO₃H, is halogen, or a straight chain or branched alkyl or alkenyl group containing 1 to 10, which is optionally substituted with 1 to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an N, O or S atom, or is a cyclic alkyl group containing 3 carbon atoms,
- is, in each case independently, 0, 1, 2, 3, 4 or 5;

wherein,

- Z is, in each case independently, -NO₂, an alkyl containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with an =O group,
- A is a straight chain alkylene group containing 1 to 5 carbon atoms, and
- n is 1, 2 or 3;

$$(Z_1)_n \qquad Q_1 \qquad Q_2 \qquad Q_2 \qquad Q_3 \qquad (VI)$$

- B is a phenyl ring,
- D is absent, or is a phenyl ring or a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,

A is a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, 3 or 4 heteroatoms selected from O, S, and N,

- Q₁ and Q₂ are, in each case independently of each other, a bond or a straight chain or branched alkylene group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O, N or S atom, and in which optionally 1 or 2 -C- groups are replaced with -C= or =C- groups, and which is optionally substituted with an =O group, wherein Q₂ is absent when D is absent,
- Z₁ is, in each case independently, -NO₂, -OH, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with and N, S or O atom,
- is, in each case independently, -NH₂, -OH, =NH, =O, =S, phenyl, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an S atom,
- is, in each case independently, =O, -OH, NO₂, NH₂, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an O atom, and
 is, in each case independently, 0, 1, 2 or 3;

$$Z_{1} G_{4} G_{5} G_{6} G_{7} G_{7$$

- G₁ to G₇ are, in each case independently, C, O, S, or N, wherein at least 3 of G₁ to G₇ are C atoms,
- Z₁ is, in each case independently, absent, or =O, =NH or an alkyl group containing 1 to 5 carbon atoms,

Z₂ is, in each case independently, a straight chain or branched alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with 1 or 2 =O and/or -OH groups,

- Q is, in each case independently, a bond or an alkylene group containing 1-5 carbon atoms, which is optionally substituted with =0, in which optionally 1, 2, or 3 carbon atoms are, in each case independently, replaced with an N or S atom, wherein S is optionally substituted with 1 or 2 =0 groups, and
- n is 0, 1 or 2, and
- m is 1 or 2;

$$Z_{1} \qquad Z_{1} \qquad Q_{1} \qquad Q_{2} \qquad \qquad \text{(VIII)}$$

$$Z_{1} \qquad Z_{1} \qquad Z_{1} \qquad Z_{2} \qquad \qquad \qquad \text{(VIII)}$$

- A is a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N, or is a C₁₀ aromatic bi-cyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,
- D is absent or is a fully or partially saturated or unsaturated cyclic ring containing 6 or 7 carbon atoms,
- Q_1 and Q_2 are, each independently of each other, a bond or a straight chain or branched alkylene group containing 1-10 carbon atoms, which is optionally substituted with an =O group, and in which optionally 1, 2 or 3 carbon atoms, independently of each other, are replaced with an N or O atom, and wherein optionally 1-3 carbon atoms are replaced with a -C= and/or =C-, and/or when the alkylene group is straight chain with a phenyl group, wherein Q_2 is absent when D is absent,
- Z₁ is, in each case independently, absent or an alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an -O- group, and which is optionally substituted with one or two =O or -OH groups,
- Z₂ is, in each case independently, =O or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O in one or two places and/or -OH,

Z₃ is halogen, or an alkyl group containing 1 to 5 carbon atoms, which is optionally halogenated, and

n is 1 or 2;

$$A^{(Z)}_n$$
 (IX)

wherein,

A is a 5- or 6- membered saturated or partially or fully unsaturated heterocyclic ring containing 2 or 3 heteroatoms selected from S and N.

Z is, in each case independently, a straight chain or branched alkyl group containing 3-5 carbon atoms, which is substituted with =O and/or OH groups, and in which a carbon atom is replaced with an S atom, and

n is 1, 2, or 3;

$$Z_n$$
 $G_2^{--}G_3$ G_4 $G_7^{--}G_8$ Z_m G_{12} G_{11} G_{10} G_{10}

wherein,

G₁ to G₁₂ are, each independently of each other, C, N, S or O,

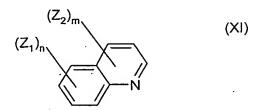
Z is, in each case independently, an alkyl containing 1 to 5 carbon atoms, which is optionally substituted with 1 to 2 =O and/or -OH groups,

Q is a bond or an alkylene group containing 1 to 5 carbon atoms,

m 0, 1, 2 or 3,

n 0, 1, 2 or 3, such that

m+n 1;



wherein,

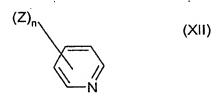
is, in each case independently, halogen, -NO2 or -OH,

 Z_2 is, in each case independently, an alkyl group containing 1-5 carbon atoms, which is optionally substituted with an =O and/or -OH group, and in which optionally a carbon atom is replaced with an S atom,

n is 0, 1, 2, or 3,

m is 0, 1, 2, or 3, and

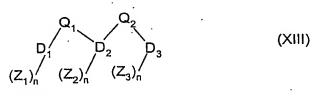
n + m is 3 or more;



wherein,

Z is, in each case independently, -C N, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with halogen, and/or is substituted with one or more =O and/or -OH groups, and in which optionally a carbon atom is replaced with an S atom, and

n is 2, 3, 4 or 5;



D₁ is a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,

- D₂ is a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N, or is optionally a phenylene group when D₃ is present,
- D₃ is absent or a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,
- Q₁ is -O-, or a straight chain alkylene group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an N, O or S atom, and which is optionally substituted with an =O atom,
- Q₂ is absent when D₃ is absent or is a bond or an -O- group,
- Z₁ is, in each case independently, =0 or halogen,
- Z₂ is, in each case independently, =O, -C N, -COOH, -NO₂ or halogen,
- Z₃ is, in each case independently, halogen, and is absent when D₃ is absent, and
- n is, in each case independently, 0, 1, 2, or 3;

$$(Z)_{m}$$

$$(XIV)$$

- B is a phenylene group,
- Q is a straight chain alkylene group containing 1-10 carbon atoms, in which optionally up to three carbon atoms are replaced with an N, O or S atom, and which is optionally substituted with 1 or 2 = O groups,
- Z is, in each case independently, halogen, or an alkyl group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O atom,

n is 0 or 1, and

m is 1 or 2;

wherein,

D is, a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,

Z is =0

n is 1, or 2;

$$(Z_1)_n \xrightarrow{Q} Q \xrightarrow{Q} Q$$

$$(XVI)$$

wherein,

Q is, each independently, C or N, wherein,

 Z_1 is a phenyl group, or 2 of Z_1 together form with the Q atoms to which they are bound a 6-membered aromatic ring containing only C atoms,

Z₂ is halogen, preferably Cl, and

n is 1, or 2;

wherein,

D is, a carbocyclic group containing 8 to 10 carbon atoms, and

R is -OH or an alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an N or O atom or with a phenyl group, and which is optionally substituted with 1 to 2 =O and/or -OH groups.

2. A method of modulating the binding of a p56^{lck} molecule via an SH2 domain thereof to a corresponding cellular binding protein, or modulating the activity of a p56^{lck} molecule via an SH2 domain thereof, comprising administering a compound of formula I to XVII or a pharmaceutically acceptable salt thereof

$$(Z_2)_n \xrightarrow{B} \xrightarrow{A} \xrightarrow{A} Q \xrightarrow{D} (Z_2)_n$$
 (I)

wherein,

B is a phenyl ring,

D is a phenyl ring or a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,

A is, in each case independently of each other, a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,

Q is a bond or an alkylene or alkenylene group containing 1-5 carbon atoms, which is optionally substituted with =O, and in which optionally a carbon atom is replaced with an N atom,

- Z₁ is, in each case independently, -NH₂, =O, =NH, or =N-phenyl, -phenyl, or alkyl containing 1 to 5 carbon atoms,
- Z₂ is, in each case independently, -OH, halogen, alkyl containing 1-5 carbon atoms, which is optionally substituted with halogen, and/or substituted with =O and/or -OH, and in which one C atom is optionally replaced with and O atom,
- Z₃ is, in each case independently, alkyl containing 1-5 carbon atoms, and
- n is, in each case independently, 0, 1, 2, or 3;

$$G_{1} G_{2} D (Z_{2})_{m}$$

$$(Z_{1})_{n} G_{3}$$

$$(II)$$

wherein,

G₁, G₂, and G₃ are, in each case independently, C, O, S, or N,

- D is a phenyl ring or a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,
- Q is a straight chain or branched alkylene or alkenylene group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N or S atom,
- Z₁ is, in each case independently, =O, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH,
- Z₂ is, in each case independently, =O, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH,
- n is 0, 1, or 2, and
- m is 0, or 1;

$$\begin{array}{c|c}
G_{6} & G_{5} & G_{4} \\
G_{1} & G_{2} & G_{3} \\
(Z_{1})_{n} & (Z_{2})_{n} & (Z_{3})_{m}
\end{array}$$
(iii)

wherein,

G₁, G₂, G₃, G₄, G₅ and G₆ are, in each case independently, C, O, S, or N, such that four or five of G₁, G₂, G₃, G₄, G₅ and G₆ are C atoms and the remaining G₁, G₂, G₃, G₄, G₅ and G₆ are O, S, or N,

- Q is a bond or a straight chain or branched alkylene or alkenylene group containing 1-10 carbon atoms which is optionally substituted with =O in one or two places, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N or O atom, and in which optionally a carbon atom is replaced with a 6-membered heterocyclic group containing 1 or 2 nitrogen atoms when the alkylene or alkenylene group is a straight chain group,
- Z₁ is, in each case independently, -OH, halogen, or an alkyl group containing 1-5 carbon atoms,
- is, in each case independently, =0, halogen, or an alkyl group containing 1-10 carbon atoms which is optionally substituted with =0 in one or two places and/or -OH, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N and/or S atom,
- is, in each case independently, -OH, halogen, -NO₂, an alkyl group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with =O in one or two places, or is -O-phenyl, wherein the phenyl group in the -O-phenyl is optionally substituted with an -NO₂ group,
- n is 0, 1, or 2, and
- m is 0, 1, 2, or 3;

$$Z_{n}^{Q_{1}} Z_{n}^{Q_{2}} Z_{n}^{Q_{2}}$$

$$Z_{n}^{Q_{2}} Z_{n}^{Q_{2}}$$

$$(IV)$$

wherein,

B is a phenyl ring,

D₁ is a phenylene ring or a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,

D₂ and D₂' are, each independently of each other, absent or a phenyl or phenylene ring or a 5-or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,

Q₁ is a bond or a branched or straight chain alkylene or alkenylene group containing 1-10 carbon atoms, which is optionally substituted with 1 to 5 =O and/or OH groups, in which optionally 1, 2, or 3 carbon atoms are, in each case independently, replaced with an N, O or S atom, wherein S is optionally substituted with 1 or 2 =O groups,

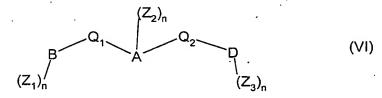
Q₂ and Q₂' are, each independently of each other, a bond or a branched or straight chain alkylene group containing 1-5 carbon atoms, which is optionally substituted with an =O group, in which optionally a carbon atom is replaced with an N, S, or O atom, wherein Q₂ is absent when D₂ is absent and Q₂' is absent when D₂' is absent,

is, in each case independently, =O, =S, -OH, -NH₂, -NO₂, -C N, -SO₃H, is halogen, or a straight chain or branched alkyl or alkenyl group containing 1 to 10, which is optionally substituted with 1 to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an N, O or S atom, or is a cyclic alkyl group containing 3 carbon atoms, is, in each case independently, 0, 1, 2, 3, 4 or 5;

Z is, in each case independently, -NO₂, an alkyl containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with an =O group,

A is a straight chain alkylene group containing 1 to 5 carbon atoms, and

n is 1, 2 or 3;



- B is a phenyl ring,
- D is absent, or is a phenyl ring or a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,
- A is a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, 3 or 4 heteroatoms selected from O, S, and N,
- Q₁ and Q₂ are, in each case independently of each other, a bond or a straight chain or branched alkylene group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O, N or S atom, and in which optionally 1 or 2 -C- groups are replaced with -C= or =C- groups, and which is optionally substituted with an =O group, wherein Q₂ is absent when D is absent,
- Z₁ is, in each case independently, -NO₂, -OH, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with and N, S or O atom,
- Z₂ is, in each case independently, -NH₂, -OH, =NH, =O, =S, phenyl, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an S atom,
- Z₃ is, in each case independently, =O, -OH, NO₂, NH₂, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an O atom, and
- n is, in each case independently, 0, 1, 2 or 3;

$$Z_{1}$$

$$G_{1}$$

$$G_{2}$$

$$G_{3}$$

$$G_{2}$$

$$G_{3}$$

$$G_{3}$$

$$G_{2}$$

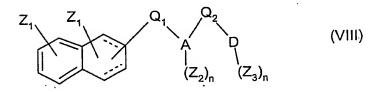
$$G_{3}$$

$$(VII)$$

wherein,

G₁ to G₇ are, in each case independently, C, O, S, or N, wherein at least 3 of G₁ to G₇ are C atoms,

- Z₁ is, in each case independently, absent, or =O, =NH or an alkyl group containing 1 to 5 carbon atoms,
- is, in each case independently, a straight chain or branched alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with 1 or 2 =O and/or -OH groups,
- Q is, in each case independently, a bond or an alkylene group containing 1-5 carbon atoms, which is optionally substituted with =O, in which optionally 1, 2, or 3 carbon atoms are, in each case independently, replaced with an N or S atom, wherein S is optionally substituted with 1 or 2 =O groups, and
- n is 0, 1 or 2, and
- m is 1 or 2;



wherein,

A is a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N, or is a C₁₀ aromatic bi-cyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,

D is absent or is a fully or partially saturated or unsaturated cyclic ring containing 6 or 7 carbon atoms,

- Q₁ and Q₂ are, each independently of each other, a bond or a straight chain or branched alkylene group containing 1-10 carbon atoms, which is optionally substituted with an =O group, and in which optionally 1, 2 or 3 carbon atoms, independently of each other, are replaced with an N or O atom, and wherein optionally 1-3 carbon atoms are replaced with a -C= and/or =C-, and/or when the alkylene group is straight chain with a phenyl group, wherein Q₂ is absent when D is absent,
- Z₁ is, in each case independently, absent or an alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an -O- group, and which is optionally substituted with one or two =O or -OH groups,
- Z₂ is, in each case independently, =O or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O in one or two places and/or -OH,
- Z₃ is halogen, or an alkyl group containing 1 to 5 carbon atoms, which is optionally halogenated, and
- n is 1 or 2;

$$A^{(Z)_n}$$
 (IX)

- A is a 5- or 6- membered saturated or partially or fully unsaturated heterocyclic ring containing 2 or 3 heteroatoms selected from S and N,
- Z is, in each case independently, a straight chain or branched alkyl group containing 3-5 carbon atoms, which is substituted with =O and/or OH groups, and in which a carbon atom is replaced with an S atom, and
- n is 1, 2, or 3;

$$Z_{n} G_{2}^{--}G_{3}$$

$$G_{-} G_{5}$$

$$G_{5} G_{7} G_{8} Z_{m}$$

$$G_{12} G_{11}$$

$$G_{10}$$

$$G_{10}$$

$$G_{10}$$

$$G_{10}$$

$$G_{10}$$

wherein,

G₁ to G₁₂ are, each independently of each other, C, N, S or O,

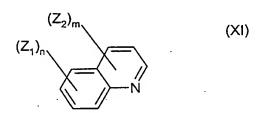
Z is, in each case independently, an alkyl containing 1 to 5 carbon atoms, which is optionally substituted with 1 to 2 =O and/or -OH groups,

Q is a bond or an alkylene group containing 1 to 5 carbon atoms,

m 0, 1, 2 or 3,

n 0, 1, 2 or 3, such that

m+n 1;



wherein,

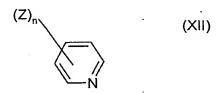
Z₁ is, in each case independently, halogen, -NO₂ or -OH,

is, in each case independently, an alkyl group containing 1-5 carbon atoms, which is optionally substituted with an =O and/or -OH group, and in which optionally a carbon atom is replaced with an S atom,

n is 0, 1, 2, or 3,

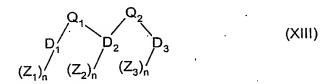
m is 0, 1, 2, or 3, and

n+m is 3 or more;



wherein,

- Z is, in each case independently, -C N, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with halogen, and/or is substituted with one or more =O and/or -OH groups, and in which optionally a carbon atom is replaced with an S atom, and
- n is 2, 3, 4 or 5;



- D₁ is a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,
- D₂ is a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1,
 2, or 3 heteroatoms selected from O, S, and N, or is optionally a phenylene group when
 D₃ is present,
- D₃ is absent or a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,
- Q₁ is -O-, or a straight chain alkylene group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an N, O or S atom, and which is optionally substituted with an =O atom,
- Q₂ is absent when D₃ is absent or is a bond or an -O- group,
- Z_1 is, in each case independently, =0 or halogen,
- Z₂ is, in each case independently, =0, -C N, -COOH, -NO₂ or halogen,
- Z₃ is, in each case independently, halogen, and is absent when D₃ is absent, and
- n is, in each case independently, 0, 1, 2, or 3;

$$(XIV)$$

$$(Z)_{m}$$

$$(XIV)$$

wherein,

B is a phenylene group,

Q is a straight chain alkylene group containing 1-10 carbon atoms, in which optionally up to three carbon atoms are replaced with an N, O or S atom, and which is optionally substituted with 1 or 2 = O groups,

Z is, in each case independently, halogen, or an alkyl group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O atom,

n is 0 or 1, and

m is 1 or 2;

wherein,

D is, a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,

Z is =0

n is 1, or 2;

$$(Z_1)_n \xrightarrow{Q} Q \xrightarrow{Q} Q$$

$$(Z_2)_n \xrightarrow{Q} (XVI)$$

wherein,

Q is, each independently, C or N, wherein,

Z₁ is a phenyl group, or 2 of Z₁ together form with the Q atoms to which they are bound a 6-membered aromatic ring containing only C atoms,

Z₂ is halogen, preferably Cl, and

n is 1, or 2;

wherein,

D is, a carbocyclic group containing 8 to 10 carbon atoms, and

R is -OH or an alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an N or O atom or with a phenyl group, and which is optionally substituted with 1 to 2 =O and/or -OH groups.

3. A pharmaceutical composition comprising a compound of formula I to XVII or a pharmaceutically acceptable salt thereof

$$(Z_2)_n \xrightarrow{B} \xrightarrow{A} \xrightarrow{A} Q \xrightarrow{D} (Z_2)_n \tag{I}$$

wherein,

B is a phenyl ring,

D is a phenyl ring or a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,

- A is, in each case independently of each other, a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,
- Q is a bond or an alkylene or alkenylene group containing 1-5 carbon atoms, which is optionally substituted with =O, and in which optionally a carbon atom is replaced with an N atom,
- is, in each case independently, -NH₂, =O, =NH, or =N-phenyl, -phenyl, or alkyl containing 1 to 5 carbon atoms,
- Z₂ is, in each case independently, -OH, halogen, alkyl containing 1-5 carbon atoms, which is optionally substituted with halogen, and/or substituted with =O and/or -OH, and in which one C atom is optionally replaced with and O atom,
- Z₃ is, in each case independently, alkyl containing 1-5 carbon atoms, and
- n is, in each case independently, 0, 1, 2, or 3;

$$G_{1} G_{2} D (Z_{2})_{m}$$

$$(II)$$

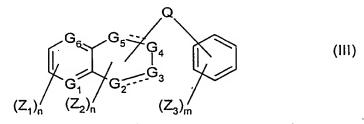
wherein,

G₁, G₂, and G₃ are, in each case independently, C, O, S, or N,

D is a phenyl ring or a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,

Q is a straight chain or branched alkylene or alkenylene group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N or S atom,

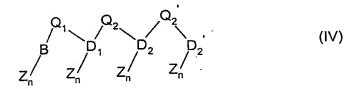
- Z₁ is, in each case independently, =O, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH,
- Z₂ is, in each case independently, =O, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O and/or -OH,
- n is 0, 1, or 2, and
- m is 0, or 1;



- G₁, G₂, G₃, G₄, G₅ and G₆ are, in each case independently, C, O, S, or N, such that four or five of G₁, G₂, G₃, G₄, G₅ and G₆ are C atoms and the remaining G₁, G₂, G₃, G₄, G₅ and G₆ are O, S, or N,
- Q is a bond or a straight chain or branched alkylene or alkenylene group containing 1-10 carbon atoms which is optionally substituted with =O in one or two places, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N or O atom, and in which optionally a carbon atom is replaced with a 6-membered heterocyclic group containing 1 or 2 nitrogen atoms when the alkylene or alkenylene group is a straight chain group,
- Z₁ is, in each case independently, -OH, halogen, or an alkyl group containing 1-5 carbon atoms,
- is, in each case independently, =O, halogen, or an alkyl group containing 1-10 carbon atoms which is optionally substituted with =O in one or two places and/or -OH, and in which optionally 1 or 2 carbon atoms, independently of each other, are replaced with an N and/or S atom,

is, in each case independently, -OH, halogen, -NO₂, an alkyl group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with =O in one or two places, or is -O-phenyl, wherein the phenyl group in the -O-phenyl is optionally substituted with an -NO₂ group,

- n is 0, 1, or 2, and
- m is 0, 1, 2, or 3;



- B is a phenyl ring,
- D₁ is a phenylene ring or a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,
- D₂ and D₂' are, each independently of each other, absent or a phenyl or phenylene ring or a 5-or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,
- Q₁ is a bond or a branched or straight chain alkylene or alkenylene group containing 1-10 carbon atoms, which is optionally substituted with 1 to 5 =O and/or OH groups, in which optionally 1, 2, or 3 carbon atoms are, in each case independently, replaced with an N, O or S atom, wherein S is optionally substituted with 1 or 2 =O groups,
- Q_2 and Q_2 ' are, each independently of each other, a bond or a branched or straight chain alkylene group containing 1-5 carbon atoms, which is optionally substituted with an =0 group, in which optionally a carbon atom is replaced with an N, S, or O atom, wherein Q_2 is absent when D_2 is absent and Q_2 ' is absent when D_2 ' is absent,
- is, in each case independently, =O, =S, -OH, -NH₂, -NO₂, -C N, -SO₃H, is halogen, or a straight chain or branched alkyl or alkenyl group containing 1 to 10, which is optionally substituted with 1 to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an N, O or S atom, or is a cyclic alkyl group containing 3 carbon atoms,
- n is, in each case independently, 0, 1, 2, 3, 4 or 5;

$$(Z)n$$
 N
 A
 OH
 (V)

wherein,

Z is, in each case independently, -NO₂, an alkyl containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with an =O group,

A is a straight chain alkylene group containing 1 to 5 carbon atoms, and

n is 1, 2 or 3;

wherein,

B is a phenyl ring,

D is absent, or is a phenyl ring or a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,

A is a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, 3 or 4 heteroatoms selected from O, S, and N,

- Q₁ and Q₂ are, in each case independently of each other, a bond or a straight chain or branched alkylene group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O, N or S atom, and in which optionally 1 or 2 -C- groups are replaced with -C= or =C- groups, and which is optionally substituted with an =O group, wherein Q₂ is absent when D is absent,
- is, in each case independently, -NO₂, -OH, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with and N, S or O atom,

is, in each case independently, -NH₂, -OH, =NH, =O, =S, phenyl, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an S atom,

- Z₃ is, in each case independently, =O, -OH, NO₂, NH₂, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with up to 3 =O and/or OH groups, and in which optionally a carbon atom is replaced with an O atom, and
- n is, in each case independently, 0, 1, 2 or 3;

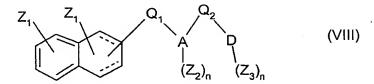
$$Z_{1} \xrightarrow{G_{4}} G_{5} \xrightarrow{G_{6}} G_{7} \qquad (VII)$$

$$G_{1} \xrightarrow{G_{2} G_{3}} G_{7} \qquad (Z_{2})_{m}$$

wherein,

G₁ to G₇ are, in each case independently, C, O, S, or N, wherein at least 3 of G₁ to G₇ are C atoms,

- Z₁ is, in each case independently, absent, or =0, =NH or an alkyl group containing 1 to 5 carbon atoms,
- Z₂ is, in each case independently, a straight chain or branched alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an O atom, and which is optionally substituted with 1 or 2 =O and/or -OH groups,
- Q is, in each case independently, a bond or an alkylene group containing 1-5 carbon atoms, which is optionally substituted with =O, in which optionally 1, 2, or 3 carbon atoms are, in each case independently, replaced with an N or S atom, wherein S is optionally substituted with 1 or 2 =O groups, and
- n is 0, 1 or 2, and
- m is 1 or 2;



wherein,

A is a 5-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N, or is a C₁₀ aromatic bi-cyclic ring containing 1, 2 or 3 heteroatoms selected from O, S, and N,

- D is absent or is a fully or partially saturated or unsaturated cyclic ring containing 6 or 7 carbon atoms,
- Q₁ and Q₂ are, each independently of each other, a bond or a straight chain or branched alkylene group containing 1-10 carbon atoms, which is optionally substituted with an =O group, and in which optionally 1, 2 or 3 carbon atoms, independently of each other, are replaced with an N or O atom, and wherein optionally 1-3 carbon atoms are replaced with a -C= and/or =C-, and/or when the alkylene group is straight chain with a phenyl group, wherein Q₂ is absent when D is absent,
- Z₁ is, in each case independently, absent or an alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an -O- group, and which is optionally substituted with one or two =O or -OH groups,
- Z₂ is, in each case independently, =O or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with =O in one or two places and/or -OH,
- Z₃ is halogen, or an alkyl group containing 1 to 5 carbon atoms, which is optionally halogenated, and
- n is 1 or 2;

$$A^{(Z)_n} \qquad (IX)$$

wherein,

A is a 5- or 6- membered saturated or partially or fully unsaturated heterocyclic ring containing 2 or 3 heteroatoms selected from S and N,

Z is, in each case independently, a straight chain or branched alkyl group containing 3-5 carbon atoms, which is substituted with =O and/or QH groups, and in which a carbon atom is replaced with an S atom, and

$$\begin{array}{c}
Z_{n} & G_{2}^{--}G_{3} \\
G_{--} & G_{4} \\
G_{5} & G_{7}^{--}G_{8} & Z_{m} \\
G_{12} & G_{11} \\
G_{10} & G_{10}
\end{array}$$
(X)

wherein,

G₁ to G₁₂ are, each independently of each other, C, N, S or O,

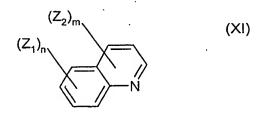
Z is, in each case independently, an alkyl containing 1 to 5 carbon atoms, which is optionally substituted with 1 to 2 = 0 and/or -OH groups,

Q is a bond or an alkylene group containing 1 to 5 carbon atoms,

m 0, 1, 2 or 3,

n 0, 1, 2 or 3, such that

m+n 1;



wherein,

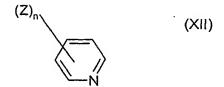
Z₁ is, in each case independently, halogen, -NO₂ or -OH,

Z₂ is, in each case independently, an alkyl group containing 1-5 carbon atoms, which is optionally substituted with an =O and/or -OH group, and in which optionally a carbon atom is replaced with an S atom,

n is 0, 1, 2, or 3,

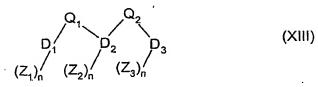
m is 0, 1, 2, or 3, and

n+m is 3 or more;



wherein,

- Z is, in each case independently, -C N, halogen, or an alkyl group containing 1-5 carbon atoms, which is optionally substituted with halogen, and/or is substituted with one or more =O and/or -OH groups, and in which optionally a carbon atom is replaced with an S atom, and
- n is 2, 3, 4 or 5;



- D₁ is a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,
- D₂ is a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1,
 2, or 3 heteroatoms selected from O, S, and N, or is optionally a phenylene group when
 D₃ is present,
- D₃ is absent or a 5- or 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,
- Q₁ is -O-, or a straight chain alkylene group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an N, O or S atom, and which is optionally substituted with an =O atom,
- Q₂ is absent when D₃ is absent or is a bond or an -O- group,
- Z₁ is, in each case independently, =0 or halogen,
- Z₂ is, in each case independently, =0, -C N, -COOH, -NO₂ or halogen,

 Z_3 is, in each case independently, halogen, and is absent when D_3 is absent, and is, in each case independently, 0, 1, 2, or 3;

$$(Z)_{m}$$

$$(XIV)$$

wherein,

B is a phenylene group,

Q is a straight chain alkylene group containing 1-10 carbon atoms, in which optionally up to three carbon atoms are replaced with an N, O or S atom, and which is optionally substituted with 1 or 2 = O groups,

Z is, in each case independently, halogen, or an alkyl group containing 1-5 carbon atoms, in which optionally a carbon atom is replaced with an O atom,

n is 0 or 1, and

m is 1 or 2;

wherein,

D is, a 6-membered saturated or partially or fully unsaturated heterocyclic ring containing 1, 2, or 3 heteroatoms selected from O, S, and N,

Z is =0

n. is 1, or 2;

$$(Z_1)_n \xrightarrow{Q} Q \xrightarrow{Q} Q$$

$$(Z_2)_n \xrightarrow{Q} Q \xrightarrow{Q} Q$$

$$(XVI)$$

wherein,

. Q is, each independently, C or N, wherein,

Z₁ is a phenyl group, or 2 of Z₁ together form with the Q atoms to which they are bound a 6-membered aromatic ring containing only C atoms,

Z₂ is halogen, preferably Cl, and

n is 1, or 2;

wherein,

D is, a carbocyclic group containing 8 to 10 carbon atoms, and

R is -OH or an alkyl group containing 1 to 5 carbon atoms, in which optionally a carbon atom is replaced with an N or O atom or with a phenyl group, and which is optionally substituted with 1 to 2 =O and/or -OH groups.

4. A method of claim 1, wherein immunosuppression is affected.

5. A method of claim 1, wherein said patient suffers from an autoimmune disease or from transplant rejection.

- 6. A method of claim 5, wherein said patient suffers from rheumatoid arthritis.
- 7. A method of claim 1, wherein said patient suffers from a neoplasm or a hyperplasia.
- 8. A method of claim 7, wherein said patient suffers from a benign or malignant tumor.
- 9. A method of claim 1, wherein said patient suffers from a depressed immune system.
- 10. A method of claim 1, wherein said patient suffers from leukemia, lymphoma, ovarian cancer and breast cancer.
- 11. A method of claim 1, wherein said patient is human.
- 12. A method of claim 1, wherein one of the following compounds or a pharmaceutically acceptable salt thereof is administered

or

13. A method of claim 2, wherein one of the following compounds or a pharmaceutically acceptable salt thereof is administered

or

14. A pharmaceutical composition according to claim 3, comprising one of the following compounds or a pharmaceutically acceptable salt thereof

or

15. A method of claim 12, wherein the compound 73 or 92 or a pharmaceutically acceptable salt thereof is administered.

- 16. A method of claim 13, wherein the compound 73 or 92 or a pharmaceutically acceptable salt thereof is administered.
- 17. A pharmaceutical composition according to claim14, comprising the compound 73 or 92 or a pharmaceutically acceptable salt thereof.
- 18. A method of claim 1, wherein the compound of formulae I to XVII has a solubility such that the ClogP value is ≤ 5 , a molecular weight of ≤ 500 Daltons, and ≤ 10 hydrogen bond donors and acceptors.
- 19. A method of claim 2, wherein the compound of formulae I to XVII has a solubility such that the ClogP value is ≤ 5 , a molecular weight of ≤ 500 Daltons, and ≤ 10 hydrogen bond donors and acceptors.
- 20. A pharmaceutical composition according to claim3, wherein the compound of formulae I to XVII has a solubility such that the ClogP value is ≤ 5 , a molecular weight of ≤ 500 Daltons, and ≤ 10 hydrogen bond donors and acceptors.
- 21. A method according to claim 1 comprising administering an effective amount of a compound formulae I to IX or a pharmaceutically acceptable salt thereof.
- 22. A method according to claim 2 comprising administering a compound of formula I to IX or a pharmaceutically acceptable salt thereof.
- 23. A pharmaceutical composition according to claim 3 comprising a compound of formula I to IX or a pharmaceutically acceptable salt thereof.